

WHAT IS CLAIMED IS:

1. A lithographic printing method comprising forming a uniform layer of a hydrophobic substance on the entire surface of a printing plate precursor having a titanium dioxide-containing surface layer, by irradiating the surface of the precursor with active light to form imagewise hydrophilic areas to make a printing plate, wherein said active light is far-ultraviolet light having a wavelength of 250 to 320 nm.

2. A lithographic printing method according to claim 1, wherein said far-ultraviolet light is emitted from a solid state laser having an oscillation wavelength of 256 nm or a low-pressure mercury lamp having a vapor pressure of 0.1 kPa or lower.

3. A lithographic printing method according to claim 1 or 2, wherein said layer of the hydrophobic substance is formed to such a thickness as to have a contact angle with a water drop of 70 to 120°.

4. A lithographic printing method according to any one of claims 1 to 3, wherein said printing plate precursor comprises a grained aluminum support having provided thereon said titanium oxide-containing surface layer.

5. A lithographic printing method according to any one of claims 1 to 3, wherein said hydrophobic substance is a subliming solid or a volatile liquid, and said layer of the hydrophobic substance is formed by condensing

vapor of said hydrophobic substance on said titanium oxide-containing surface layer.

5 6. A lithographic printing method according to any one of claims 1 to 3, wherein said hydrophobic substance is an organic polymer, and said layer of the hydrophobic substance is formed by spraying a solution or dispersion of said organic polymer onto said titanium oxide-containing surface layer.

10 7. A lithographic printing method according to any one of claims 1 to 3, wherein said layer of the hydrophobic substance is formed on said titanium oxide-containing layer by spread coating, spray coating, vapor condensation, gas contact or dip coating.

15 8. A lithographic printing method according to any one of claims 1 to 3, which further comprises removing residual ink from the printing plate after completion of printing to regenerate said printing plate as a printing plate precursor.

20 9. A lithographic printing apparatus comprising (1) a part in which a printing plate precursor having a titanium oxide-containing surface layer is fixed, (2) a part in which a layer of a hydrophobic substance is formed on the entire surface of said printing plate precursor, (3) a part in which said printing plate precursor with the hydrophobic layer is imagewise irradiated with far-ultraviolet light having a wavelength of 250 to 320 nm to produce a printing
25 plate having an imagewise hydrophilic areas/hydrophobic areas distribution,

(4) a part in which ink is fed to said hydrophobic areas, and a fountain solution is fed to said hydrophilic areas, and (5) a part in which said printing plate having received ink on the hydrophobic areas thereof and the fountain solution on the hydrophilic areas thereof is brought into contact with a printing substrate to carry out printing.

10. A lithographic printing apparatus according to claim 9, wherein said parts (1) to (5) are arranged around a plate cylinder.

11. A lithographic printing apparatus according to claim 9 or 10, which further has (6) a part in which the printing plate after use is cleaned with an ink solvent to make it reusable as a printing plate precursor.